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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,616	02/16/2006	Toshihiko Okamoto	Q93069	9359
23373 7590 09/25/2008 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER OJURONGBE, OLATUNDE S	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 09/25/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/568,616

**Applicant(s)**

OKAMOTO ET AL.

**Examiner**

OLATUNDE S. OJURONGBE

**Art Unit**

1796

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4-7, 12, 15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-7, 12, 15 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)  
Paper No(s)/Mail Date 20080715
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The Amendment filed on July 15th, 2008, has been entered. Claims 1,4-7, 12, 15 and 16 remain pending in the application.
2. The lined out entries on the Information Disclosure Statement (IDS) are references that have been considered in a prior IDS.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 5-7 and 16**, are rejected under 35 U.S.C. 102(b) as being anticipated by **Fukunaga et al (US 6,410,640)** as evidenced by **Singh (US 4,960,844)**.

Regarding **claim 1**, Fukunaga et al teaches a curable resin composition which contains an organic polymer (a) having at least one reactive silicon group per molecule, and a stannous curing catalyst (d) (col.2, lines 46-51); examples of the stannous curing catalyst include stannous versatate (col.10, lines 29-31). Fukunaga et al further teaches that the reactive silicon group contained in the polymer (a) is a group which has a hydroxyl group or a hydrolyzable group bonded to a silicon atom and can be crosslinked via the formation of a siloxane bond (col.4, lines 41-45) and that particular examples of component (a) include those disclosed in a limited list of patents which include US 4,960,844 (col.6, lines 21-25).

US 4,960,844 teaches a liquid polymer having the formula (Abstract); since the value of p in the formula of US 4,960,844 is 2 to 4, the number of the NH-C=O group is from 4 to 8.

Regarding **claim 5**, Fukunaga et al further exemplifies the use of 0.5 to 10 parts by weight of stannous octylate per 100 parts by weight of the curable organic polymer (col.10, lines 50-54); since Fukunaga et al teaches stannous octylate and stannous versatate as equivalents, the taught amount of stannous octylate would have been used for stannous versatate in the composition of Fukunaga et al, when stannous versatate is used as a catalyst.

Regarding **claims 6 and 16**, Fukunaga et al further teaches that it is preferable to use an amine compound together with the curing catalyst (col.10, lines 33-35).

Regarding **claim 7**, Fukunaga et al further exemplifies the use of 0.1 to 10 parts by weight of laurylamine per 100 parts by weight of the curable organic polymer (col. lines 52-53).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. **Claims 1, 4, 12 and 15**, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fukunaga et al (US 6,410,640)** as evidenced by **Singh (US 4,960,844)**, as applied to claim 1 above, in view of **Suzuki et al (EP 0538881)** in further view of **Okamoto et al (WO 03/011978**, see English Language equivalent **US 7,115,695**).

Regarding **claims 1 and 4**, Fukunaga et al teaches a curable resin composition which contains an organic polymer (a) having at least one reactive silicon group per molecule, and a stannous curing catalyst (d) (col.2, lines 46-51); examples of the stannous curing

catalyst include stannous versatate (col.10, lines 29-31). Fukunaga et al further teaches that the reactive silicon group contained in the polymer (a) is a group which has a hydroxyl group or a hydrolyzable group bonded to a silicon atom and can be crosslinked via the formation of a siloxane bond (col.4, lines 41-45) and that particular examples of component (a) include those disclosed in a limited list of patents which include US 4,960,844 (col.6, lines 21-25).

US 4,960,844 teaches a liquid polymer having the formula (Abstract); since the value of p in the formula of US 4,960,844 is 2 to 4, the number of the NH-C=O group is from 4 to 8.

Fukunaga et al does not teach the curable composition in which the component (B) is a carboxylic acid of the instant claim.

Suzuki et al teaches the use of carboxylic acid in place of organometallic compounds in curing a polymer having at least one silicon atom-containing group to the silicon atom of which a hydroxyl group or a hydrolysable group is attached, and being cross-linked through formation of a siloxane bond (page 2, lines 9-19).

Since the composition of Suzuki et al is similar to that of Fukunaga et al, one of ordinary skill in the art would have used carboxylic acid in curing the composition of the invention of Fukunaga et al, as taught by Suzuki et al, in order to have a less toxic curing composition.

Modified Fukunaga et al does not teach the carboxylic acid of the instant claim.

Okamoto et al teaches a curable composition comprising an organic polymer having at least one silicon-containing group which has a hydroxy or hydrolyzable group bonded to

the silicon atom and which is crosslinkable by forming siloxane bonds , and a specific metal salt of a carboxylic acid (Abstract, lines 1-5), Okamoto further teaches that in view of availability, cheap price and good compatibility with the organic polymer, the carboxylic acid from which the metal carboxylate is formed is preferably neodecanoic acid, amongst a limited list of carboxylic acids (col.15, lines 61-65), and in view of its rapid curing rate, the carboxylic acid is more preferably carboxylic acid wherein a carbon atom adjacent to a carbonyl group is quaternary carbon (col.16, lines 1-8). Since the composition of Okamoto et al is similar to that of modified Fukunaga et al, one of ordinary skill in the art would have used a carboxylic acid wherein a carbon atom adjacent to a carbonyl group is quaternary carbon in curing the composition of the invention of Fukunaga et al based on the taught advantages.

Regarding **claims 12 and 15**, modified Fukunaga et al further teaches the composition of the invention containing a primary amine (Suzuki et al, page 5, lines 6-7) and further teaches a total amount of the carboxyl group -containing compound and the primary amine ranging from 0.01 to 20 parts by weight, per 100 parts by weight of the base polymer (Suzuki et al, page 5, lines 45-47), with the ratio of the carboxyl group-containing compound (carboxylic acid) to the primary amine ranging from 0.1:1 to 20:1. (Suzuki et al, page 6, lines 1-4).

#### **International Search Report (ISR)**

9. None of the references of the ISR teaches the tin carboxylate and/or the carboxylic acid (B) of the instant claim.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

11. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on July 15<sup>th</sup> 2008, prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLATUNDE S. OJURONGBE whose telephone number is (571)270-3876. The examiner can normally be reached on Monday-Thursday, 7.15am-4.45pm, EST time, Alt Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571)272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

O.S.O.

/Randy Gulakowski/  
Supervisory Patent Examiner, Art Unit 1796

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